

CALENDAR YEAR 2002

COLORADO DRINKING WATER ANNUAL COMPLIANCE REPORT

July 1, 2003

I. Introduction

The Drinking Water Program: An Overview

The EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in drinking water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results to the states or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation, and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 states, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

The SDWA allows states and territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. For a state to receive primacy, EPA must determine that the state meets certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that the state can enforce the program requirements. Of the 57 states and territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. To receive primacy, a Tribe must meet the same requirements as a state. To date, no Tribes have been granted primacy. Currently, EPA administers PWSS Programs on all Indian lands.

Annual State PWS Report

Primacy states submit data to the Safe Drinking Water Information System (SDWIS/FED) on a quarterly basis. Data include PWS inventory statistics, the incidence of Maximum Contaminant Level, Maximum Residual Disinfectant Level, Major Monitoring and Treatment Technique violations, and the enforcement actions taken against violators. The annual compliance report that states are required to submit to EPA will provide a total annual representation of the numbers of violations for each of the four categories listed in section 1414(c)(3) of the Safe Drinking Water Act reauthorization. These four categories are: MCLs, treatment techniques, variances and exemptions, and significant monitoring violations. The EPA Regional Offices report the information for Wyoming, the District of Columbia, and all Indian Lands. Regional offices also report Federal enforcement actions taken. EPA stores this data in an automated database called the Safe Drinking Water Information System (SDWIS). This report is based largely on data retrieved from the federal version of the Safe Drinking Water Information System (SDWIS/FED).

Due to current and ongoing efforts to migrate Colorado's data to SDWIS/State and SIDWIS/FED, this Annual Compliance Report is based on data captured from the SDWIS/Fed production database on May 30, 2003 instead of the SDWIS/Fed database frozen in April 2003.

The first annual report was generated January 1, 1998, for the compliance period of calendar year 1996. This report is the seventh annual report, and covers calendar year 2002. Subsequent reports will be generated each July 1 for each previous calendar year.

Public Water System

A Public Water System (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs. PWSs can be community (such as towns), non-transient non-community (such as schools or factories), or transient non-community systems (such as restaurants, rest stops or parks). For the purpose of this report the acronym "PWS" means systems of all types of public water systems, unless, specified in greater detail.

Maximum Contaminant Level

Under the Safe Drinking Water Act (SDWA), the EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs).

Maximum Residual Disinfectant Level

Under Section 1412 of the Safe Drinking Water Act (SDWA), the EPA sets levels of a disinfectant added for treatment of water that may not be exceeded. These limits are known as Maximum Residual Disinfectant Level (MRDLs) and are enforceable in the same manner as MCLs.

Treatment Techniques

For some regulations, the EPA establishes treatment techniques (TTs) in lieu of a MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, bacteria, disinfection byproduct precursors and turbidity.

Variations and Exemptions

A primacy state can grant a PWS a variance from a primary drinking water regulation if the characteristics of the raw water sources reasonably available to the PWS do not allow the system to meet the MCL. To obtain a variance, the system must agree to install the best available technology, treatment techniques, or other means of limiting drinking water contamination that the Administrator finds are available (taking costs into account), and the state must find that the variance will not result in an unreasonable risk to public health. At the time the variance is granted, the state must prescribe a schedule (including increments of progress) that the PWS will follow to come into eventual compliance with the MCL. Small systems (those serving 3,300 or fewer persons; or 10,000 or fewer persons with the Administrator's approval) may also be granted variances if they cannot afford (as determined by application of the Administrator's affordability criteria) to comply with certain MCLs (non-microbial, promulgated after January 1, 1986) by means of treatment, alternative source of water, or restructuring or consolidation. Small systems will be allowed three years to install and operate EPA approved small system variance technology. The variance shall be reviewed not less than every five years to determine if the system remains eligible for the variance.

A primacy state can grant an exemption to temporarily relieve a PWS of its obligation to comply with an MCL, treatment technique, or both if the system's noncompliance results from compelling factors (which may include economic factors) and the system was in operation on the effective date of the MCL or treatment technique requirement. A new PWS that was not in operation on the effective date of the MCL or treatment technique requirement by that date may be granted an exemption only if no reasonable alternative source of drinking water is available to the new system. Neither an old nor a new PWS is eligible for an exemption if management or restructuring changes can reasonably be made that will result in compliance with the SDWA or improvement of water quality, or if the exemption will result in an unreasonable risk to public health. The state will require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than three years after the otherwise applicable compliance date.

Monitoring

A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agency, a monitoring violation occurs.

Significant Monitoring Violations

For this report, significant monitoring violations are generally defined as any major monitoring violation that occurred during the calendar year of the report. A major monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period. Detailed descriptions of what constitutes a major monitoring violation for most drinking water regulations can be found in EPA's *Consolidated Summary of State Reporting Requirements for the Safe Drinking Water Information System (SDWIS)*, EPA 812-B-95-001, Consolidated Summary. There are a few drinking water regulations for which the *Consolidated Summary* does not provide a definition of major monitoring violation. For those regulations, EPA has determined what constitutes a significant violation of the monitoring provisions and designed its annual SDWIS ACR computer query to include both these violations and the defined major reporting violations in the tally of significant monitoring violations in a state. Addenda to the ACR describe the additional monitoring violations EPA has determined are significant.

II. Table of Violations

Appendix A, Violations Table, summarizes violations of the monitoring and reporting requirements, and violations of maximum contaminant levels for the State of Colorado in calendar 2002. These violations are further described below.

Chemical Contaminants

The chemical contaminants monitored in drinking water include organic chemicals, inorganic chemicals, and radiological parameters. Monitoring requirements vary by system type and source. Monitoring for nitrate, an inorganic chemical contaminant, is required for all systems annually. If a system exceeds a chemical MCL, then quarterly monitoring is required in addition to other requirements; systems experiencing levels between the MCL and one half of the MCL are required to monitor annually.

Calendar year 2002 was the first year in a three-year compliance cycle. Although the State designates a specific year for each system to conduct monitoring, the failure-to-monitor is not reported to SDWIS/Fed as a violation until the end of the three-year cycle. For that reason, data show a lower number of violations in the monitoring/reporting category when compared to calendar year 2001, which was the last year in a three-year compliance cycle.

Of the 2078 active public water systems operating in Colorado during calendar year 2002, 105 systems, representing 164 separate violations, failed to do the required significant monitoring and/or reporting for chemical contaminants.

Four systems were newly discovered to have exceeded the MCL for one or more chemical contaminants. Under the direction of EPA regional and headquarters offices, existing chemical MCL violations from previous compliance periods that have not returned to compliance are not included in the counts for the 2002 Annual Compliance Report. The 1996 Annual Compliance Report counts included all outstanding MCL violations.

Below is a summary of both the MCL and the monitoring and reporting violations that occurred in calendar year 2002:

Organic chemicals: No systems were newly identified with violations of the MCLs for organic chemicals in calendar year 2002. There were no failures to monitor and/or report for the calendar year 2002.

Inorganic Chemicals: Ground water systems are required to monitor for inorganic chemicals once during the compliance period 2002 through 2004, inclusive. Surface water systems are required to monitor for inorganic chemicals annually. Surface and ground water systems are required to monitor for nitrogen compounds (nitrate, nitrite and combined) annually and for radionuclides once every four years.

During the first year of this three-year compliance period, 105 surface or ground water systems had failed to monitor and/or report the required inorganic chemical monitoring. The 105 systems' failing to monitor and/or report resulted in 164 violations. There were four new MCL violations.

These violations for monitoring and reporting and for MCLs mentioned above are broken down as follows:

Inorganics (not including nitrogen compounds and radionuclides):

There were 60 occurrences of monitoring and/or reporting violations from six (6) different systems. That is, six systems failed to monitor for the suite of inorganic chemical contaminants, resulting in a total of 60 monitoring/reporting violations. There were no MCL violations for inorganic chemical contaminants.

Nitrogen Compounds:

There were 99 occurrences of monitoring and/or reporting violations from 99 different systems. Three (3) of the new chemical MCL violations occurred in two systems with total nitrate and nitrite violations, and one system with an MCL violation for nitrate.

Radionuclides:

There were five (5) occurrences of monitoring and/or reporting violations for radionuclides.

There was one (1) new MCL violation for radium-226 and radium-228.

(Note: Some public water systems failed to monitor and/or report in more than one subcategory of chemical contaminant, resulting in disparate sums in the subcategories versus the total for chemical contaminants.)

Coliform Bacteria Violations

A total of 2078 public water systems are required to monitor for the presence of coliform bacteria during a total of approximately 14,000 compliance periods each year. The 2002 monitoring revealed 44 systems that detected and confirmed the presence of coliform bacteria in the water a total of 55 times. Of these 55 violations, four were acute with possible immediate health threats, and 51 were not acute violations. In all cases, problems were identified, corrected, and public notification was required. In the case of the acute violations, notification to the public was made within 24 hours of the problem being identified, and may have included a boil water advisory.

Also during the 2002 calendar year, 323 systems failed to take samples representing 451 separate violations. These violations resulted in system notification, increased monitoring, and/or enforcement action so samples were submitted to verify that the water continued to be safe.

Surface Water Treatment Rule

Of the 313 surface water systems active in the state in 2002, 32 systems had a total of 64 violations of Treatment Technique (TT) requirements. These violations were due to either inadequate filtration resulting in high turbidity (cloudiness) of the water, or inadequate disinfection with chlorine.

In 2002, 30 systems had significant monitoring violations for either turbidity or chlorine disinfectant residual, resulting in 50 separate violations.

Drinking water plants that are unable to maintain compliance with the requirements for filtration of water supplies are evaluated and provided with technical assistance to ascertain the cause of non-compliance. The problems vary from poor operation to the need for new treatment plants. Where necessary, enforcement action is taken to assure that proper treatment techniques are used to provide safe water to the consumers.

Lead and Copper Rule

This rule applied to 1029 public water systems and requires systems to monitor for lead and copper levels, and install corrosion control and educate consumers if appropriate. If elevated lead or copper levels are found, treatment is required, if appropriate, to bring the drinking water to within the required action levels. In 2002, no system failed to educate their customers of the potential health problems resulting from elevated lead levels. However, two systems have failed to meet deadlines for the installation of corrosion control treatment.

In the calendar year 2002, 30 systems had a total of 30 significant monitoring and/or reporting violations. Of these 30 violations, 25 systems failed to take the required follow-up or routine samples and five systems failed to perform initial lead and copper monitoring.

Consumer Confidence Report (CCR) Rule

In calendar year 2002, 55 community public water systems had a total of 62 reporting violations for failing to submit a Consumer Confidence Report. Of these 62 violations, 55 were for failure to submit 2001 CCR reports by the compliance deadline of July 1, 2002 and seven (7) violations were for systems' failing to submit CCRs for years prior to 2001. Thirty-one of the 55 systems submitted the 2001 CCR after informal enforcement actions, and the Division issued formal enforcement orders to the remaining 24 systems.

Interim Enhanced Surface Water Rule (IESWTR)

In calendar year 2002, one (1) community public water system had a total of one treatment technique violation. There were no other violations for this rule.

Stage I Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR)

In calendar year 2002, one (1) community public water system had one MRDL violation. There were no treatment technique violations. Twelve community public water systems had a total of 26 monitoring and/or reporting violations.

III. Variances and Exemptions

There are no variances or exemptions to report at this time.

IV. Conclusion

Calendar year 2002 was the first year of a three-year compliance period, resulting in fewer monitoring/reporting and MCL violations for chemical contaminants. Compliance with the monitoring requirements of the Lead and Copper Rule saw improvement: in 2002, 93.5% of systems subject to the rule were in compliance compared to 86.4% in 2001. Compliance with the Total Coliform Rule remained steady, with 93.6% of PWSs monitoring and reporting as required, and 98% of systems in compliance with the MCL. For all rules, 78% of PWSs were compliant with monitoring/reporting requirements in 2002 compared to 74% in 2001; 98% of all systems complied with MCLs in both 2001 and 2002.

V. List of MCL, MRDL and Treatment Technique Violators

See Appendix A and B, attached.

VI. Report Availability and Contact Information

The 2002 summary report may be obtained by writing to:

Colorado Department of Public Health and Environment
Water Quality Control Division
ATTN: Annual Compliance Report
CADM-B2
4300 Cherry Creek Drive South
Denver, CO 80246

In addition, this summary report has been posted on the Water Quality Control Division's Website at http://www.cdphe.state.co.us/wq/Drinking_Water/Drinking_Water_Program_Home.htm

For further information concerning this report, or with specific violations associated with public water systems, you may contact Lori Gerzina with the WQCD Compliance Assurance & Data Management Unit at (303) 692-3587 or by electronic mail at lori.gerzina@state.co.us.

**APPENDIX A
VIOLATIONS TABLE
(with SDWIS Codes)**

State: Colorado Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
	ORGANIC CONTAMINANTS							
2981	1,1,1-Trichloroethane	0.2	0	0			0	0
2977	1,1-Dichloroethylene	0.007	0	0			0	0
2985	1,1,2-Trichloroethane	0.005	0	0			0	0
2378	1,2,4-Trichlorobenzene	0.07	0	0			0	0
2931	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
2980	1,2-Dichloroethane	0.005	0	0			0	0
2983	1,2-Dichloropropane	0.005	0	0			0	0
2063	2,3,7,8-TCDD (Dioxin)	3 x 10 ⁻⁸	0	0			0	0
2110	2,4,5-TP	0.05	0	0			0	0
2105	2,4-D	0.07	0	0			0	0
2265	Acrylamide				0	0		
2051	Alachlor	0.002	0	0			0	0
2050	Atrazine	0.003	0	0			0	0

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
2990	Benzene	0.005	0	0			0	0
2306	Benzo[a]pyrene	0.0002	0	0			0	0
2046	Carbofuran	0.04	0	0			0	0
2982	Carbon tetrachloride	0.005	0	0			0	0
2959	Chlordane	0.002	0	0			0	0
2380	Cis-1,2-Dichloroethylene	0.07	0	0			0	0
2031	Dalapon	0.2	0	0			0	0
2035	Di(2-ethylhexyl)adipate	0.4	0	0			0	0
2039	Di(20ethylhexyl)phthalate	0.006	0	0			0	0
2964	Dichloromethane	0.005	0	0			0	0
2041	Dinoseb	0.007	0	0			0	0
2032	Diquat	0.02	0	0			0	0
2033	Endothall	0.1	0	0			0	0
2005	Endrin	0.002	0	0			0	0
2257	Epichlorohydrin				0	0		
2992	Ethylbenzene	0.7	0	0			0	0

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
2946	Ethylene dibromide	0.00005	0	0			0	0
2034	Glyphosate	0.7	0	0			0	0
2065	Heptachlor	0.0004	0	0			0	0
2067	Heptachlor epoxide	0.0002	0	0			0	0
2274	Hexachlorobenzene	0.001	0	0			0	0
2042	Hexachlorocyclopentadiene	0.05	0	0			0	0
2010	Lindane	0.0002	0	0			0	0
2015	Methoxychlor	0.04	0	0			0	0
2989	Monochlorobenzene	0.1	0	0			0	0
2968	o-Dichlorobenzene	0.6	0	0			0	0
2969	para-Dichlorobenzene	0.075	0	0			0	0
2383	Total polychlorinated biphenyls	0.0005	0	0			0	0
2326	Pentachlorophenol	0.001	0	0			0	0
2987	Tetrachloroethylene	0.005	0	0			0	0
2984	Trichloroethylene	0.005	0	0			0	0
2996	Styrene	0.1	0	0			0	0

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
2991	Toluene	1.0	0	0			0	0
2979	Trans-1,2-Dichloroethylene	0.1	0	0			0	0
2955	Xylenes (total)	10.0	0	0			0	0
2020	Toxaphene	0.003	0	0			0	0
2036	Oxamyl (Vydate)	0.2	0	0			0	0
2040	Picloram	0.5	0	0			0	0
2037	Simazine	0.004	0	0			0	0
2976	Vinyl Chloride	0.002	0	0			0	0
2950	Total trihalomethanes	0.10	0	0			0	0
	ORGANIC SUBTOTAL		0	0			0	0
	INORGANIC CONTAMINANTS							
1074	Antimony	0.006	0	0			6	6
1005	Arsenic	0.05	0	0			6	6

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
1094	Asbestos	7 million fibers/L ≤ 10 um long	0	0			0	0
1010	Barium	2.0	0	0			6	6
1075	Beryllium	0.004	0	0			6	6
1015	Cadmium	0.005	0	0			6	6
1020	Chromium	0.1	0	0			6	6
1024	Cyanide (as free cyanide)	0.2	0	0			0	0
1025	Fluoride	4.0	0	0			6	6
1035	Mercury	0.002	0	0			6	6
1045	Selenium	0.05	0	0			6	6
1085	Thallium	0.002	0	0			6	6
	INORGANIC SUBTOTAL		0	0			60	6
	NITROGEN COMPOUNDS							
1038	Total nitrate & nitrite	10 (as nitrogen)	2	2			0	0
1041	Nitrite	1 (as nitrogen)	0	0			10	10

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
		Nitrogen)						
1040	Nitrate	10 (as Nitrogen)	1	1			89	89
	SUBTOTAL NITROGEN COMPOUNDS		3	3			99	99
	RADIONUCLIDES							
4000	Gross alpha	15 pCi/L	0	0			5	5
4010	Radium-226 & radium 228	5 pCi/L	1	1			0	0
4101	Gross beta	4 mrem.yr	0	0			0	0
	RADIONUCLIDES SUBTOTAL		1	1			5	5
	CHEMICAL CONTAMINANTS (Organic, Inorganic, N) SUBTOTAL		4	4			164	105
	TOTAL COLIFORM RULE							
21	Acute MCL violation	Presence	4	4				

State: Colorado
Reporting Interval: 2002

SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
22	Non-acute MCL violation	Presence	51	44				
23, 25	Major routine and follow-up monitoring						451	323
28	Sanitary survey ²						0	0
	TCR RULE SUBTOTAL		55	44			451	323

SURFACE WATER TREATMENT RULE								
	Filtered systems							
	Monitoring, routine/repeat						50	30
	Treatment Techniques				63	31		
	Unfiltered Systems							
	Monitoring, routine/repeat						0	0
	Failure to Filter				1	1	0	0
	SWTR SUBTOTAL				64	32	50	30

LEAD & COPPER RULE								
51	Initial lead and copper tap monitoring						5	5

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
52	Follow-up or routine lead and copper tap M/R						25	25
58, 62	Treatment Installation				2	2		
65	Public Education				0	0		
	LEAD & COPPER RULE SUBTOTAL				2	2	30	30
	CONSUMER CONFIDENCE REPORT RULE							
7000	Annual Report Submittal						62	55
	CCR SUBTOTAL						62	55
	IESWTR RULE							
0300	Treatment Technique Violations (37, 43, 44, 47) (Viol Reported is Type 44)				1	1		
0300	Significant M/R Violations (29,09, 38 w major = Y)						0	0
	IESWTR SUBTOTALS				1	1	0	0

State: Colorado								
Reporting Interval: 2002								
SDWIS Codes	Contaminant	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
	STAGE 1 DBP RULE							
0400 & 2920	Treatment Technique Violations (12, 37, 46)				0	0		
1009	Maximum Residual Disinfectant Levels Violations (02, 11, and 13) (Vio Reported is Type 02)	1.0	1	1				
1011, 2456, 2950, 1006, 1008, 0999	Maximum Residual Disinfectant Levels Violations (02, 11, and 13)						0	0
0400	Significant M/R Violations (27 w major = Y)						9	5
2920	Significant M/R Violations (27 w major = Y)						5	5
1008	Significant M/R Violations (27 w major = Y)						4	3
1009	Significant M/R Violations (27 w major = Y)						7	5
2456	Significant M/R Violations (27 w major = Y)						1	1
1011, 1006, 0999	Significant M/R Violations (27 w major = Y)		0	0				
	STAGE 1 DBP RULE SUBTOTALS		1	1	0	0	26	12
GRAND TOTALS FOR ALL RULES								
			60	48	67	35	721	459

¹Values are in milligrams per liter (mg/L) unless specified otherwise.

²Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

Definitions for Violations Table

The following definitions apply to the Summary of Violations table.

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

Initial lead and copper tap M/R: SDWIS Violation Code 51 indicates that a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: SDWIS Violation Code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: SDWIS Violation Codes 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

Public education: SDWIS Violation Code 65 shows that a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Maximum Residual Disinfectant Level (MRDL): Means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Radionuclides: Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

Gross alpha: SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

Gross beta: SDWIS Contaminant Code 4101 for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

Reporting Interval: The reporting interval for violations to be included in the first PWS Annual Compliance Report, which is to be submitted to EPA by January 1, 1998, is from July 1, 1996 through June 30, 1997. This interval will change for future annual reports. See guidance language for these intervals.

SDWIS Code: Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific MCL contaminants.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the “Surface Water Treatment Rule” are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): SDWIS Violation Code 36 indicates a system’s failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): SDWIS Violation Code 41 shows a system’s failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): SDWIS Violation Code 31 indicates a system’s failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): SDWIS Violation Code 42 shows a system’s failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: SDWIS Violation Code 21 indicates that the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: SDWIS Violation Code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major routine and follow-up monitoring: SDWIS Violation Codes 23 AND 25 show that a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

Sanitary Survey: SDWIS Violation Code 28 indicates a major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed.

Treatment Techniques: A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H].

Violation: A failure to meet any state or federal drinking water regulation.